Statistical Section

STATISTICAL SECTION OVERVIEW

The Maryland State Retirement and Pension System (MSRPS) has implemented GASB Statement 44, Economic Condition Reporting: The Statistical Section. This statement establishes standardized reporting requirements relative to the supplementary information provided in this section in an effort to improve the understandability and usefulness of the information presented. GASB Statement 44 further states that the purpose of the Statistical Section is to provide historical perspective, context, and detail to assist readers in using the information in the financial statements and the notes to the financial statements to better understand and assess the System's overall economic condition. The schedules within the Statistical Section are classified into the following four categories: Financial Trends, Revenue Capacity, Demographic and Economic Information, and Operating Information.

The schedules beginning on page 125 show financial trend information to assist users in understanding and assessing how the MSRPS's financial position has changed over the past 10 years. The financial trend schedules presented are:

- Changes in Plan Net Position
- Benefits Expense by Type

The schedules beginning on page 126 show demographic and economic information and operating information. The demographic and economic information is intended to assist users in understanding the environment in which MSRPS operates. The operating information is intended to provide contextual information about MSRPS's operations to assist readers in using financial statement information. The demographic and economic information and the operating information presented include:

- Schedule of Average Benefit Payments .
- History of Funding Progress
- Contribution Rates by Plan
- Schedule of Retired Members by Type
- Schedule of Active Membership by Plan
- Schedule of Retirees and Beneficiaries by Plan
- Revenues by Source and Expenses by Type
- Revenues vs. Expenses
- Principal Participating Employers

TEN-YEAR HISTORY OF CHANGES IN PLAN NET POSITION

for the Years Ended June 30, (Expressed in thousands)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Additions										
Employer contributions	\$ 1,308,921	\$ 1,512,472	\$ 1,595,761	\$ 1,643,101	\$ 1,733,653	\$ 1,858,612	\$ 1,870,655	\$2,036,596	\$ 1,995,017	\$ 2,054,091
Members contributions	535,581	528.028	703,256	710,856	727,726	755,444	764,414	782,686	791,583	807,291
Net Investment income	4,016,359	6,273,337	104,084	3,845,795	5,706,267	1,197,671	497,531	4,473,443	3,899,393	3,288,209
Total Additions	5,860,861	8,313,837	2,403,101	6,199,752	8,167,646	3,811,727	3,132,600	7,292,725	6,685,993	6,149,591
Deductions										
Benefit payments	2,445,540	2,580,392	2,755,106	2,950,700	3,121.823	3,284,550	3,469,493	3,577,123	3,744,132	3,926,220
Refunds	33,531	33,369	33,819	38,281	42,922	48,245	58,362	63,441	68,600	67,400
Administrative expenses	28,627	30,961	28,201	26,280	26,130	29,080	28,659	30,904	33,211	39,784
Total Deductions	2,507,698	2,644,722	2,817,126	3,015,261	3,190,875	3,361,875	3,556,514	3,671,468	3,845,943	4,033,404
Changes in Plan Net Positions	\$ 3,353,162	\$ 5,669,115	\$ (414,025)	\$ 3,184,491	\$ 4,976,771	\$ 449,852	\$ (423,914)	\$ 3,621,257	\$ 2,840,050	\$ 2,116,187

SCHEDULE OF BENEFIT EXPENSE BY TYPE

(Expressed In Thousands)

			Death In Service Pre-	Di	sability Benef	lits		Death After Retirement Post-		
Fiscal		vice Benefits	Retirement	Ret	irees		F	Retirement	t	
Year	Retirees	Survivors	Benefits	Accidental	Ordinary	Survivors		Benefits		Total
2010	\$ 2,045,795	\$ 100,953	\$ 18,857	\$ 102,032	\$ 161,836	\$ 16,068	\$	_	\$	2,445,541
2011	2,164,368	104,884	18,758	105,493	170,267	16,623		_		2,580,393
2012	2,318,614	109,674	19,232	109,996	179,914	17,677		_		2,755,107
2013	2,484,792	118,044	20,027	116,636	192,440	18,761		_		2,950,700
2014	2,633,852	124,807	20,514	120,829	202,147	19,672		_		3,121,823
2015	2,777,136	130,215	21,005	124,090	211,373	20,731		_		3,284,550
2016	2,937,077	138,467	21,592	128,518	221,849	21,990		_		3,469,493
2017	3,028,182	145,322	21,522	130,309	229,143	22,644		_		3,577,122
2018	3,175,588	152,066	21,655	133,671	237,539	23,612		_		3,744,132
2019	3,334,495	161,203	21,720	138,313	245,429	25,059		_		3,926,220

SCHEDULE OF REFUND EXPENSE BY TYPE

(Expressed in thousands)

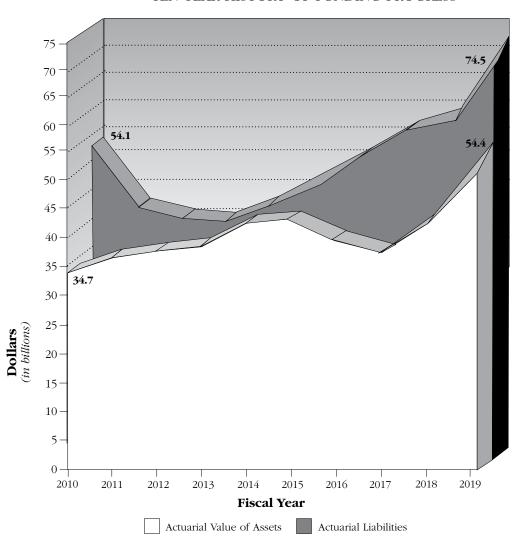
Fiscal	Companyation	Death	Misc.	Total
Year	Separation	Deam	MISC.	Total
2010	\$ 29,320	\$ 4,029	\$ 182	\$ 33,531
2011	29,041	4,108	220	33,369
2012	29,521	4,142	156	33,819
2013	33,348	4,834	99	38,28
2014	36,835	5,955	132	42,92
2015	40,966	7,126	153	48,24
2016	51,372	6,869	120	58,36
2017	54,671	8,538	238	63,44
2018	59,108	9,315	177	68,600
2019	58,848	8,394	158	67,400

MARYLAND STATE RETIREMENT AND PENSION SYSTEM TEN YEAR HISTORY OF AVERAGE BENEFIT PAYMENTS

Years Credited Service

	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30+
Period 7/1/2009 to 6/30/2010	ф 505	φ 5/0	ф. 020	φ 12/6	ф. 1. (7 0	φ 1.071	ф. 2.022
Average monthly benefit	\$ 505	\$ 542	\$ 838	\$ 1,246	\$ 1,670	\$ 1,971	\$ 2,933
Monthly final average salary	\$ 2,902	\$ 3,425	\$ 3,636	\$ 4,392	\$ 4,814	\$ 5,097	\$ 5,811
Number of retired members	271	834	662	690	873	698	2,266
Period 7/1/2010 to 6/30/2011							
Average monthly benefit	\$ 435	\$ 541	\$ 851	\$ 1,211	\$ 1,800	\$ 2,161	\$ 3,100
Monthly final average salary	\$ 2,884	\$ 3,373	\$ 3,734	\$ 4,309	\$ 4,984	\$ 5,395	\$ 5,970
Number of retired members	306	951	901	950	1,164	900	2,856
Period 7/1/2011 to 6/30/2012							
Average monthly benefit	\$ 351	\$ 437	\$ 806	\$ 1,296	\$ 1,745	\$ 2,175	\$ 3,358
Monthly final average salary	\$ 2,878	\$ 3,483	\$ 3,788	\$ 4,645	\$ 5,128	\$ 5,520	\$ 6,310
Number of retired members	254	931	844	817	989	837	2,662
Period 7/1/2012 to 6/30/2013							
Average monthly benefit	\$ 435	\$ 473	\$ 802	\$ 1,317	\$ 1,712	\$ 2,231	\$ 3,297
Monthly final average salary	\$ 2,810	\$ 3,577	\$ 3,907	\$ 4,686	\$ 5,028	\$ 5,548	\$ 6,217
Number of retired members	234	972	860	910	978	917	2,389
Period 7/1/2013 to 6/30/2014							
Average monthly benefit	\$ 405	\$ 472	\$ 832	\$ 1,324	\$ 1,794	\$ 2,234	\$ 3,383
Monthly final average salary	\$ 2,475	\$ 3,508	\$ 4,064	\$ 4,699	\$ 5,222	\$ 5,673	\$ 6,380
Number of retired members	218	918	873	964	910	938	2,304
Period 7/1/2014 to 6/30/2015							
Average monthly benefit	\$ 454	\$ 459	\$ 888	\$ 1,304	\$ 1,804	\$ 2,275	\$ 3,246
Monthly final average salary	\$ 2,338	\$ 3,515	\$ 4,139	\$ 4,679	\$ 5,124	\$ 5,571	\$ 6,134
Number of retired members	201	911	972	1,089	968	1,042	2,621
Period 7/1/2015 to 6/30/2016							
Average monthly benefit	\$ 501	\$ 472	\$ 869	\$ 1,367	\$ 1,901	\$ 2,366	\$ 3,377
Monthly final average salary	\$ 2,371	\$ 3,407	\$ 4,128	\$ 4,773	\$ 5,427	\$ 5,786	\$ 6,425
Number of retired members	219	918	934	1,118	953	1,016	2,423
Period 7/1/2016 to 6/30/2017							
Average monthly benefit	\$ 576	\$ 509	\$ 864	\$ 1,400	\$ 1,943	\$ 2,454	\$ 3,479
Monthly final average salary	\$ 2,199	\$ 3,626	\$ 4,110	\$ 4,865	\$ 5,389	\$ 5,855	\$ 6,563
Number of retired members	138	748	873	1,028	964	863	2,060
Period 7/1/2017 to 6/30/2018							
Average monthly benefit	\$ 279	\$ 520	\$ 938	\$ 1,476	\$ 1,982	\$ 2,626	\$ 3,526
Monthly final average salary	\$ 3,012	\$ 3,482	\$ 4,290	\$ 4,934	\$ 5,457	\$ 6,046	\$ 6,584
Number of retired members	87	704	925	1,200	1,084	964	2,428
Period 7/1/2018 to 6/30/2019							
Average monthly benefit	\$ 311	\$ 508	\$ 950	\$ 1,510	\$ 2,028	\$ 2,678	\$ 3,597
Monthly final average salary	\$ 3,082	\$ 3,360	\$ 4,243	\$ 4,916	\$ 5,460	\$ 6,034	\$ 6,580
Number of retired members	109	816	956	1,213	1,086	967	2,439

TEN-YEAR HISTORY OF FUNDING PROGRESS



TEN-YEAR HISTORY OF EMPLOYER CONTRIBUTION RATES BY PLAN

			State				Participating Governmental Units (PGU					
Fiscal Year	Combined State Rate	Teachers' Combined Rate	Employees' Combined Rate	Judges' Retirement	State Police Retirement	Law Enforcement Officers' Pension	Law Enforcement Officers' Pension	Employees' Retirement	Employees' Pension	Correctional Officers' Retirement		
* 2010	12.62%	13.15%	9.93%	49.89%	30.79%	38.63%	30.03%	9.05%	4.05%	8.41%		
2011	14.33	14.34	11.69	59.07	57.03	47.67	32.74	12.30	7.30	9.69		
2012	15.67	15.45	13.40	60.37	61.01	49.26	33.09	12.41	7.41	8.87		
2013	13.85	13.29	12.29	61.18	61.21	46.81	28.71	10.46	5.46	7.96		
2014	15.43	14.71	14.05	50.92	66.71	52.47	31.76	11.47	6.47	9.41		
2015	16.41	15.47	15.53	42.74	83.06	41.37	30.45	11.20	6.20	11.43		
2016	16.83	15.71	16.38	40.70	78.91	39.77	31.94	10.00	5.00	10.43		
2017	17.58	15.79	18.28	46.56	81.40	39.60	31.18	9.64	4.64	9.81		
2018	17.60	15.71	18.56	46.45	80.29	39.69	30.75	10.03	5.03	9.53		
2019	17.42	15.43	18.58	44.53	78.41	39.78	31.43	10.47	5.47	9.85		

^{*}Rates for Municipal Systems only include basic employee cost rate.

Does not include reduction of \$120 Million in contributions for State Systems due to 2011 General Assembly reforms.

SCHEDULE OF RETIRED MEMBERS BY TYPE as of June 30, 2019

Amount of Monthly	Number of	•			Type of Retir	ement		
Benefit	Retirees	NR(1)	ER(2)	SP(3)	SPD(4)	ADR(5)	ODR(6)	SPDR(7)
1- 300	18,910	16,583	837	940	15	9	289	237
301- 600	16,349	11,425	2,294	1,105	41	25	1,072	387
601 - 900	14,307	8,842	2,503	981	81	34	1,533	333
901 - 1,200	13,327	8,053	2,312	891	87	85	1,648	251
1,201 - 1,500	12,453	7,783	1,868	871	98	196	1,405	232
1,501 - 1,800	11,951	8,006	1,519	727	70	285	1,202	142
1,801 - 2,100	10,684	7,320	1,258	567	67	332	1,057	83
2,101 - 2,400	9,956	7,039	1,069	472	48	391	877	60
2,401 - 2,700	9,057	6,558	874	420	60	399	697	49
2,701 - 3,000	7,917	5,922	706	322	52	361	529	25
Over 3,000	39,981	33,634	1,623	_1,189	220_	1,631	1,594	90
,	164,892	121,165	16,863	8,485	839	3,748	11,903	1,889

Type of Retirement:

^{1 -} Normal retirement for age and service

^{2 –} Early retirement

^{3 –} Survivor payment – normal or early retirement

^{4 -} Survivor payment - death in service

^{5 –} Accidental disability retirement

^{6 -} Ordinary disability retirement

^{7 –} Survivor payment – disability retirement

OF RETIREMENT AND OPTION SELECTED

#O	ption	Sel	ected
$\pi \mathbf{v}$	DUVII		ccicu

MAX	Opt. 1	Opt. 2	Opt. 3	Opt. 4	Opt. 5	Opt. 6	Opt. 7
10,336	3,742	1,979	815	819	732	480	7
7,850	2,718	1,898	1,359	1,033	704	781	6
6,374	2,023	1,710	1,424	1,227	590	952	7
5,681	1,667	1,635	1,450	1,302	576	1,012	4
4,920	1,410	1,884	1,403	1,215	688	930	3
4,436	1,503	1,759	1,355	1,239	681	976	2
3,928	1,318	1,559	1,207	1,210	573	886	3
3,738	1,143	1,476	1,174	1,096	465	860	4
3,358	1,030	1,331	1,043	1,047	453	793	2
3,159	848	1,101	839	977	360	629	4
16,373	_3,514_	_5,198	4,632	_5,856	_1,344_	3,038	26
70,153	20,916	21,530	16,701	17,021	7,166	11,337	68

Option Selected:

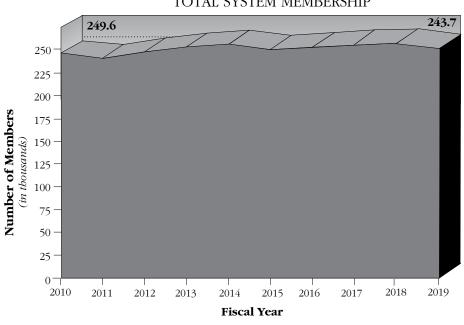
- Basic The standard benefit if no option is selected. Generally, at retiree's death, all payments cease. However, the basic allowance for the State Police, Law Enforcement Offices (LEOPS), Judges and Legislators provides a continuing benefit for spouses or children under 18.
- Opt. 1 Guarantees return of the present value of the retirement benefit less the total payments already paid to the member.
- Opt. 2 Guarantees the same payment to the designated beneficiaries for their lifetime.
- Opt. 3 Guarantees one half the member's payment to the designated beneficiaries for their lifetime.
- Opt. 4 Guarantees return of the member's accumulated contributions and interest less the member's accumulated reserves already paid.
- Opt. 5 Guarantees the same payment to the designated beneficiaries for their lifetime, unless the beneficiaries predecease the respective members. Allowance then increases to the basic.
- Opt. 6 Guarantees one half the member's payment to the designated beneficiaries for their lifetime, unless the beneficiaries predecease the respective members. Allowance then increases to the basic.
- Opt. 7 Special option calculation performed by actuary.

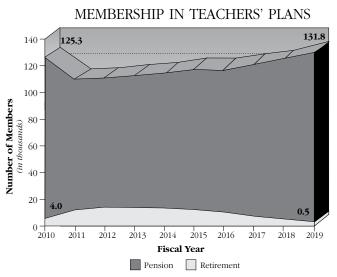
TEN-YEAR HISTORY OF MEMBERSHIP BY PLAN

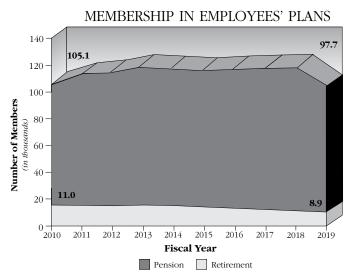
Fiscal Year	Total	Teachers' Retirement	Teachers' Pension	Employees' Retirement*	Employees' Pension	Judges' Retirement	State Police Retirement	Law Enforcement Officers' Pension	Local Correctional Officers' Retirement
2010	249,561	4,012	125,278	10,664	105,138	300	1,431	2,672	66
2011	245,970	3,339	124,806	10,139	103,292	297	1,386	2,625	86
2012	244,224	2,663	124,064	10,011	103,038	304	1,417	2,637	90
2013	244,362	2,154	125,429	9,865	102,463	298	1,404	2,658	91
2014	245,655	1,718	126,972	9,572	102,791	309	1,433	2,767	93
2015	246,369	1,372	128,695	9,370	102,270	315	1,475	2,781	91
2016	246,062	1,051	129,794	8,749	101,760	305	1,486	2,823	94
2017	246,370	805	130,990	8,409	101,415	321	1,461	2,869	100
2018	244,732	617	131,417	8,481	99,425	325	1,446	2,922	99
2019	243,704	487	131,769	8,887	97,691	323	1,453	2,994	100

Note: Includes vested former members. *Includes members of the Maryland General Assembly and State correctional officers.

TOTAL SYSTEM MEMBERSHIP





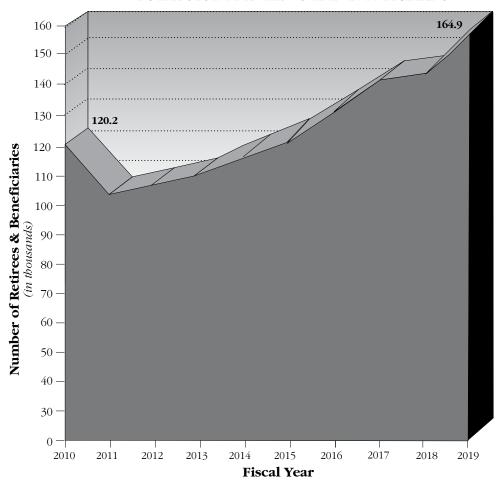


TEN-YEAR HISTORY OF RETIREES AND BENEFICIARIES BY PLAN

Fiscal Year	Total	Teachers' Retirement	Teachers' Pension	Employees' Retirement*	Employees' Pension	Judges' Retirement	State Police Retirement	Law Enforcement Officers' Pension	Correctional Officers' Retirement System
2010	120,247	30,270	27,269	23,475	35,418	351	2,282	1,182	-
2011	127,171	30,012	30,553	23,230	39,339	358	2,371	1,302	6
2012	132,493	29,705	33,994	22,796	41,840	365	2,387	1,396	10
2013	137,925	29,247	37,143	22,368	44,825	378	2,428	1,518	18
2014	142,887	28,762	40,167	22,013	47,446	395	2,468	1,613	23
2015	147,850	28,131	43,045	21,571	50,460	397	2,508	1,711	27
2016	152,566	27,552	46,030	21,172	53,039	407	2,536	1,801	29
2017	156,366	26,762	48,747	20,734	55,206	417	2,572	1,896	32
2018	160,374	25,764	51,437	20,340	57,947	421	2,477	1,954	34
2019	164,892	24,822	54,329	19,955	60,757	431	2,505	2,053	40

^{*} Includes members of the Maryland General Assembly and correctional officers.





TEN-YEAR HISTORY OF REVENUES BY SOURCE AND EXPENSES BY TYPE (Expressed in Thousands)

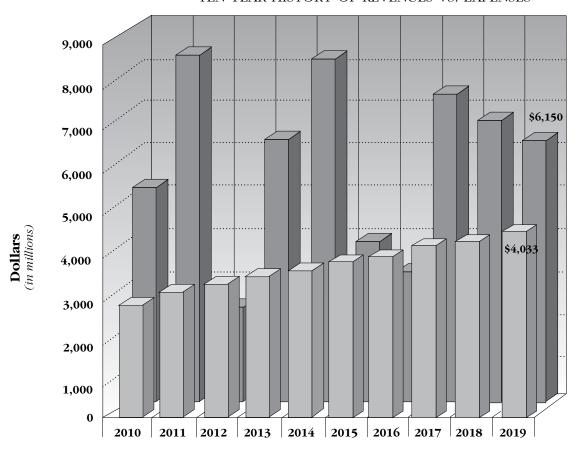
REVENUES

Fiscal Year	Members' Contributions	Employers' and Other Contributions	Annual Covered Payroll	Employers' and Other Contributions as a Percent of Covered Payroll	Net Investment Income	Total Revenues
2010	\$ 535,581	\$ 1,308,921	\$ 10,657,944	12.28 %	\$ 4,016,359	\$ 5,860,861
2011	528,028	1,512,472	10,478,800	14.43	6,273,337	8,313,837
2012	703,256	1,595,761	10,336,536	15.44	104,084	2,403,100
2013	710,856	1,643,101	10,477,544	15.68	3,845,795	6,199,752
2014	727,726	1,733,653	10,803,631	16.05	5,706,267	8,167,646
2015	755,444	1,858,612	11,063,961	16.80	1,197,671	3,811,727
2016	764,414	1,870,655	11,155,924	16.77	497,531	3,132,600
2017	782,686	2,036,596	11,418,973	17.83	4,473,443	7,292,725
2018	791,583	1,995,017	11,566,220	17.24	3,899,393	6,685,993
2019	807,291	2,054,091	11,905,463	17.25	3,288,209	6,149,591

EXPENSES

Fiscal		Administrative		
Year	Benefits	Expenses	Refunds	Total
2010	\$ 2,445,540	\$ 28,627	\$ 33,531	\$ 2,507,698
2011	2,580,392	30,961	33,369	2,644,722
2012	2,755,106	28,201	33,819	2,817,126
2013	2,950,700	26,280	38,281	3,015,261
2014	3,121,823	26,130	42,922	3,190,875
2015	3,284,550	29,080	48,245	3,361,875
2016	3,469,493	28,659	58,362	3,556,514
2017	3,577,123	30,904	63,441	3,671,468
2018	3,744,132	33,211	68,600	3,845,943
2019	3,926,220	39,784	67,400	4,033,404

TEN-YEAR HISTORY OF REVENUES VS. EXPENSES



Fiscal Year



PRINCIPAL PARTICIPATING EMPLOYERS CURRENT YEAR AND NINE YEARS AGO

	2019			2010		
	Covered Employees	Rank	Percentage of Total System	Covered Employees	Rank	Percentage of Total System
Participating Government						
State of Maryland	356,870	1	87%	323,741	1	88%
All other (Participating Municipalities)	51,726	2	13%	46,067	2	12%
Total System	408,596			369,808		

Governmental Units Participating in the Systems

as of June 30, 2019

Allegany Community College Allegany County Board of Education Allegany County Government

Allegany County Housing Authority

Allegany County Library

Allegany County Transit Authority

Annapolis, City of

Anne Arundel Community College Anne Arundel County Board of Education

Anne Arundel County Community Action Agency, Inc.

Baltimore Metropolitan Council

Berlin, Town of

Berwyn Heights, Town of Bladensburg, Town of Bowie, City of

Brunswick, City of

Calvert County Board of Education

Cambridge, City of

Cambridge Housing Authority Caroline County Board of Education Caroline County Sheriff Deputies Carroll County Board of Education Carroll County Public Library Carroll Soil Conservation District

Catoctin & Frederick County Soil Conservation

District

Cecil County Board of Education Cecil County Government Cecil County Library Centreville, Town of Chesapeake Bay Commission Chestertown, Town of

Cheverly, Town of

College of Southern Maryland College Park, City of

Crisfield, City of

Crisfield Housing Authority Cumberland, City of

Cumberland, City of -Police Department

Denton, Town of District Heights, City of

Dorchester County Board of Education Dorchester County Government Dorchester County Roads Board Dorchester County Sanitary Commission Eastern Shore Regional Library

Edmonston, Town of Elkton, Town of Emmitsburg, Town of Federalsburg, Town of

Frederick County Board of Education

Frostburg, City of Fruitland, City of

Garrett County Board of Education Garrett County/Western Maryland Health

Planning Council

Garrett County Community Action Committee

Garrett County Roads Board

Greenbelt, City of Greensboro, Town of Hagerstown, City of

Hagerstown Community College

Hampstead, Town of

Harford County Board of Education Harford County Community College Harford County Government Harford County Library Harford County Liquor Board

Howard Community College

Howard County Board of Education

Howard County Community Action Committee

Hurlock, Town of Hyattsville, City of

Kent County Board of Education Kent County Government

Kent Soil And Water Conservation District

Landover Hills, Town of LaPlata, Town of Manchester, Town of

Maryland Health & Higher Educational Facilities

Authority

Middletown, Town of Montgomery College Morningside, Town of Mount Airy, Town of Mount Rainier, City of New Carrollton, City of North Beach, Town of

Northeast Maryland Waste Disposal Authority

Oakland, Town of Oxford, Town of Pocomoke, City of Preston, Town of

Prince Georges Community College Prince Georges County Board of Education Prince Georges County Crossing Guards Prince Georges County Government Prince Georges County Memorial Library

Princess Anne, Town of

Queen Anne's County Board of Education

Queen Anne's County Government

Queenstown, Town of Ridgely, Town of Rockhall, Town of Salisbury, City of Shore Up!

Snow Hill, Town of

Somerset County Board of Education Somerset County Government

Somerset County Economic Development

Somerset County Sanitary District, Inc. Southern MD Tri-County Community Action Committee

St. Mary's County Board of Education St. Mary's County Government St. Mary's County Housing Authority St. Mary's County Metropolitan Commission

St. Michaels, Town of Sykesville, Town of Takoma Park, City of

Talbot County Board of Education Talbot County Government Taneytown, Town of Thurmont, City of

Tri-County Council For Lower Eastern Shore Tri-County Council For Western Maryland

University Park, Town of Upper Marlboro, Town of Walkersville, Town of

Washington County Board of Education Washington County Liquor Board Washington County Library Westminster, City of

Worcester County Board of Education Worcester County Government Worcester County Liquor Control Board

Wor-Wic Community College

*Withdrawn Governmental Units

Anne Arundel County Government Bethesda Fire Department Caroline County Roads Board Chevy Chase Fire Department Hancock, Town of Harford County Liquor Control Board (1982) Lexington Market Authority Maryland National Capital Park & Planning

Montgomery County Board of Education Montgomery County Government Montgomery County Public Library St. Mary's Nursing Home University of Maryland Medical System Washington County Government Washington County Board of License Commissioners (1972)

Washington County Roads Board

*List reflects withdrawn governmental units

Washington County Sanitary District Western Maryland Health Planning Agency Wicomico County Department of Recreation and Parks

Wicomico County Roads Board

Commission

with a withdrawal liability balance.